



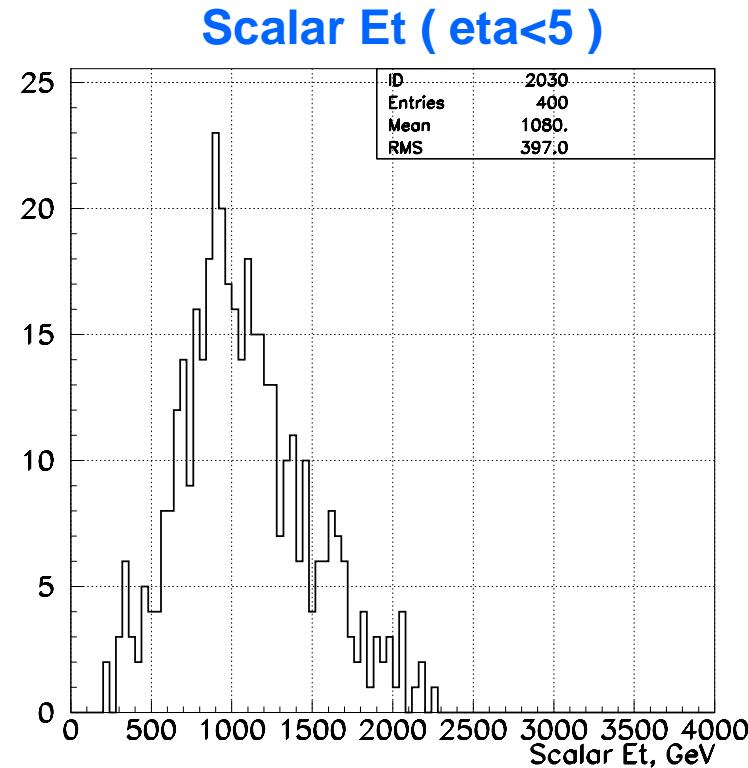
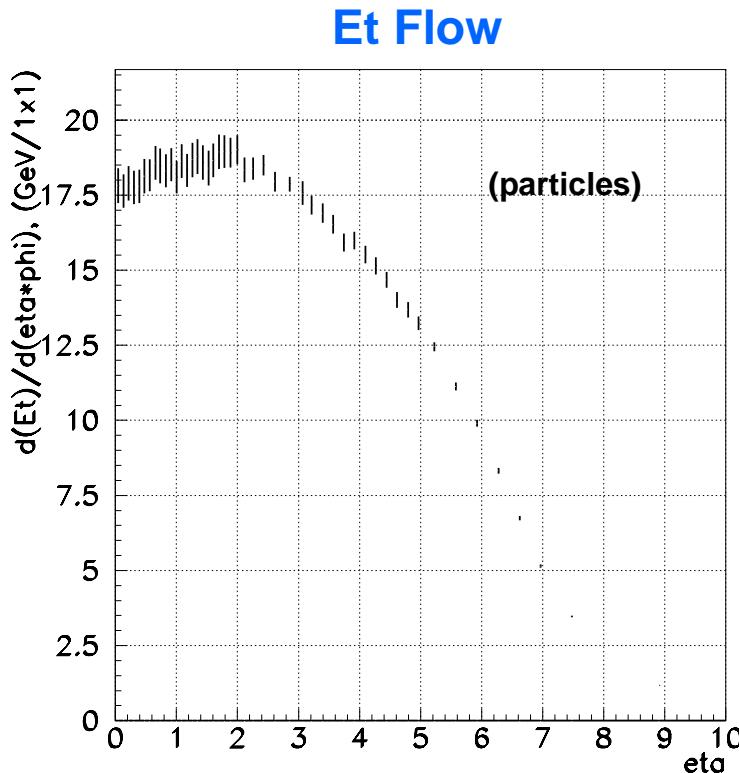
Calorimeter at eta 5-7

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Minimum Bias Event Overlap

X-sec = 55mb >>> 17.3 min-bias/crossing at 10E34

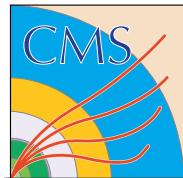


~17 GeV in unit ($\eta \times \phi$) !

(equiv. cone radius 0.56)

<Scalar Et> = 1080 GeV

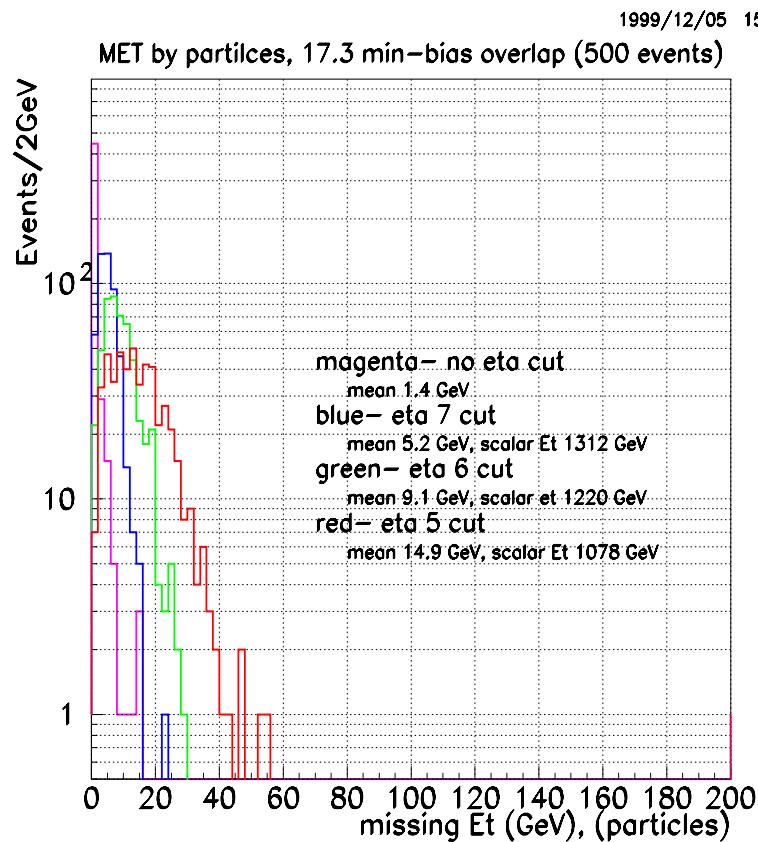
Note: <Scalar Et> = 750 GeV for ttH



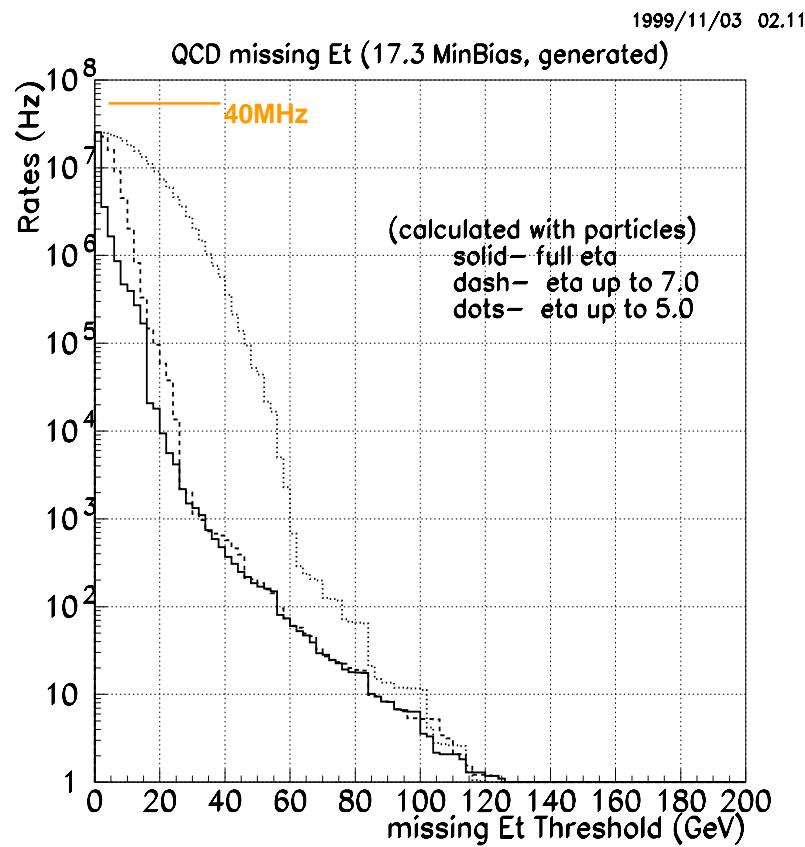
MET: Eta 5 vs Eta 7

(Event Generator Level)

17.3 Min-bias events

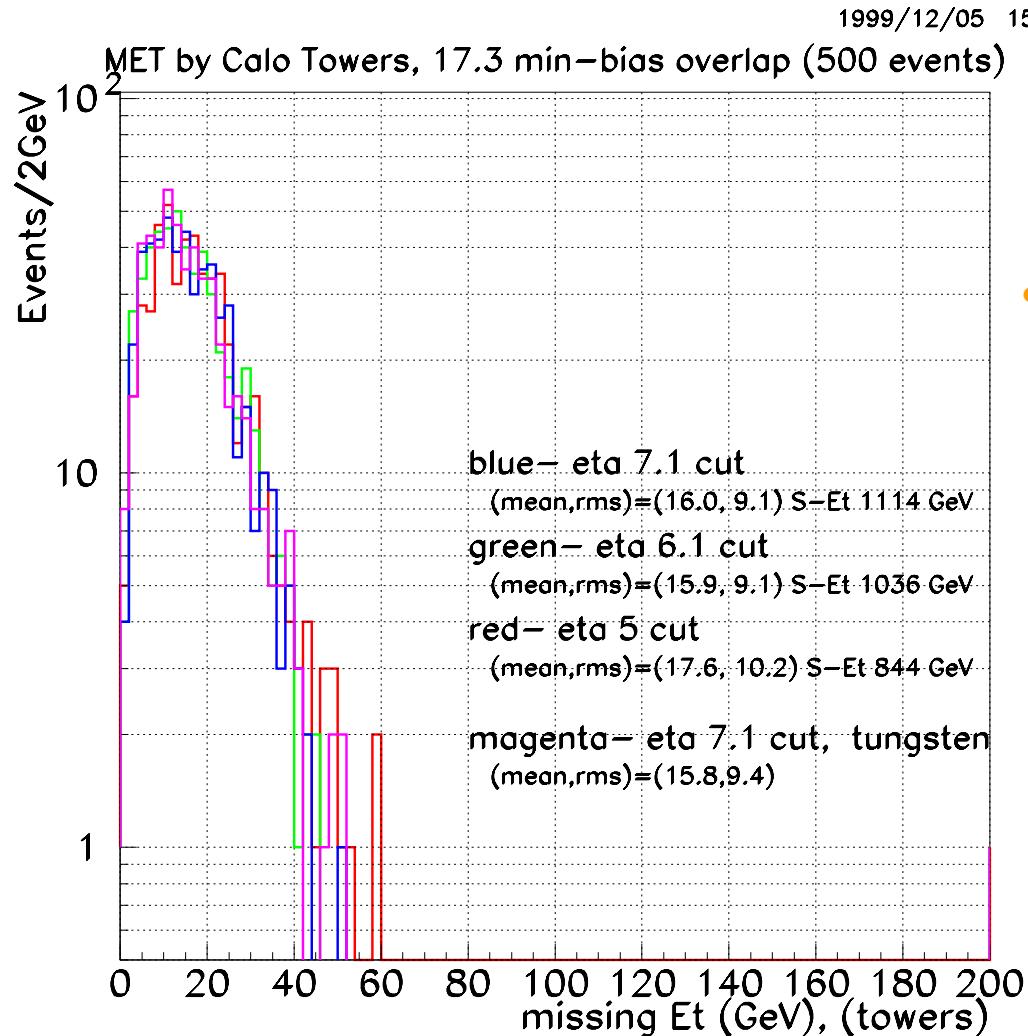


Rates for QCD $\text{Et} > 15\text{GeV}$ + min-bias.





CMSIM Simulation



HF2:

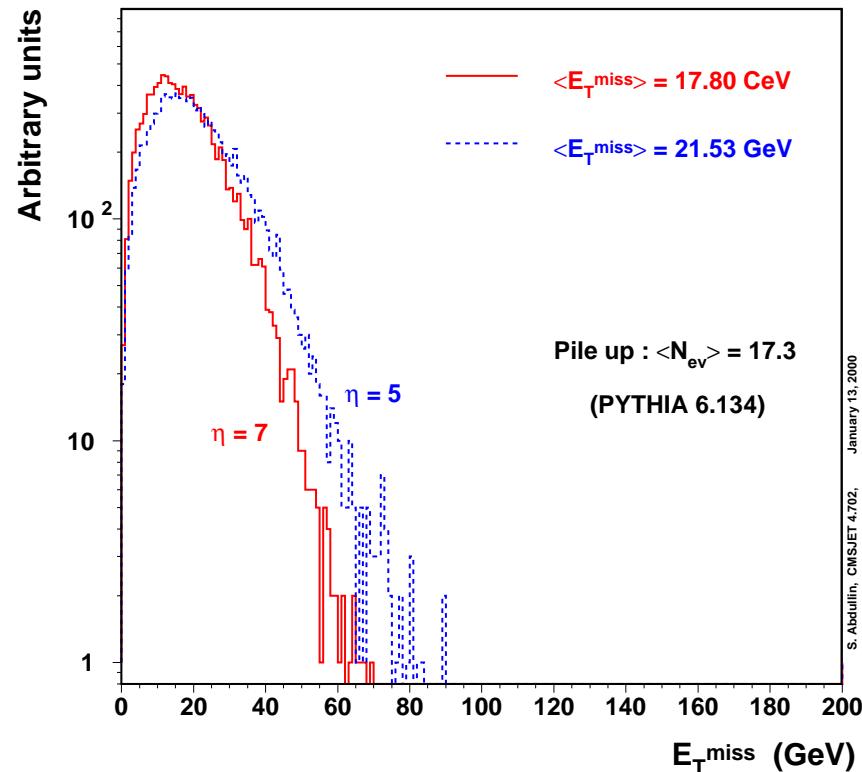
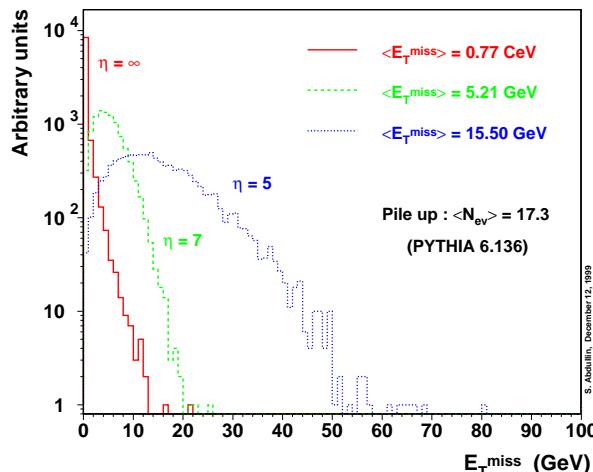
- Z=1613-1628-1748-1778cm
em had tail
- Rin= 2.5cm, Rout=130cm
- Material: Cu(W) + fibers
- Segmentation
eta=0.348, phi=20deg.
- Size
6.1x7.2cm at eta 5
:
1.1x0.9cm at eta 7



CMSJET Simulation

(by S.Abdullin)

Particle level E_T^{miss} calculation for various η coverage



MET (GeV)			
	gen.	cmsjet	
eta	res.	all(*)	
5	15.49	19.36	21.53
7	5.21	12.92	17.80
(all = res. & B-field & vtx smearing)			



~ Equal contribution from
eta 5-7, resolution and B-field
(15GeV) (12GeV) (9-12GeV)



Next Step?

HF2 at eta 5-7 seems not helpful-

- unless we improve the resolution in $\eta < 5$ and reduce the B-field effect.

Any noble idea?

- Can we use reconstructed tracks?
- Any other idea?